

A. In the Specification:

Please substitute the following paragraph for the paragraph on page 3 beginning at line 6:

5            Efforts today have centered on improving the  
survival rates of stored oocytes by improving  
cryopreservation techniques. According to Martino  
et al. (Martino et al., *Biol. Reprod.* 54: 1059 -  
1069 (1996)), such efforts have focused on  
10          comparing different cryoprotectants (Otoi et al.,  
*Theriogenology* 40: 801-807 (1993); Dinnyes et al.,  
*Cryobiology* 31: 569 - 570 (1994)) and different  
freezing regimens (Lira et al., *Theriogenology* 35:  
1225 - 1235 (1991)); or related vitrification  
15          methods (Otoi et al., *Theriogenology* 40: 801 - 807  
(1993); Otoi et al., *Cryobiology* 37: 77 - 85  
(1998)).

Please substitute the following paragraph for the paragraph on page 12 beginning at line 17:

20          Oocytes or embryos are suspended in an  
equilibration medium consisting of 4% (v/v)  
ethylene glycol or other intracellular  
A2         cryoprotective agent in moderate concentration, in  
25         a base medium (TCM 199 or similar solutions)  
supplemented with 20% fetal bovine serum, or bovine  
serum albumin, or any other macromolecules with  
surfactant effects at room temperature, or higher,  
physiological temperatures (39°C for example) for  
30         several minutes. Following this equilibration

A2  
CONT<sup>5</sup>

period, groups of oocytes or embryos are rinsed at least two times in small drops of vitrification solution consisting of 35% ethylene glycol (or other intracellular cryoprotectants in high concentration), 5% polyvinyl-pyrolidone (or other macromolecules), 0.4 M trehalose (or other sugars) in base medium and 20% fetal bovine serum, or other surfactant compounds, as described above, for a few seconds and dropped on the surface of a steel cube,  
10 or other solid surface with good heat conductivity, which is cooled down to around -150°C to -180°C or similar subzero temperatures by partially immersing it into liquid or solid nitrogen or into other cooling agents. It is preferred that the drop size  
15 be about 4 µl or smaller, more preferably 3 µl or smaller, and yet more preferably 2 µl or smaller, and yet more preferably 1 µl or smaller, which allows instantaneous vitrification. The vitrified droplets can be moved with a nitrogen-cooled  
20 forceps or other tool into 1-ml cryovials or other suitable containers.

B. In the Claims:

25 Please cancel claims 5-8 without prejudice.

Please substitute amended claim 1, below, for claim 1 as filed.

A3  
30 1. (AMENDED) A method for the vitrification of biological materials, said method comprising the steps of: